sought to assess the usage of bone protection in steroid dependant asthmatics.

Method A retrospective analysis of patients admitted for a systematic assessment of asthma over a 12 month period at the Royal Brompton hospital was performed. Steroid dependence was defined as daily maintenance oral glucocorticoid for over three months. Other Inflammatory conditions requiring corticosteroids resulted in study exclusion.

Results 151 patients were admitted for a systematic assessment over a 12 month period. The mean age of subjects at assessment was 46 years of age (\pm 27 SD) and the majority were female (77%). Fifty four subjects (36%) were steroid dependent at the time of admission. The average daily dose of prednisolone prescribed was 12.5 mg (\pm 5.9 SD). Two thirds of steroid dependent patients had been on corticosteroids for over 12 months (36/54).

At the time of referral 11 patients were on Bisphosphonates and 34 on vitamin D replacement. The systematic assessment encompassed a DEXA scan in 49 of the steroid dependent subjects; half demonstrated normal bone density (26/54), one third had osteopenia (16/54) and seven subjects had osteoporosis. Forty Six subjects had vitamin D levels checked and the mean levels were 48 nmol/L (\pm 27 SD).

Bisphosphonates were stopped in seven patients with normal bone mineral density (13%), continued in 3 subjects and started during assessment in 4. Vitamin D supplementation was continued in 30 subjects, stopped in 2 and started in 5 subjects with osteopenia and low vitamin D levels.

Conclusions In a cohort of oral glucocorticoids steroid dependant asthmatics over half have normal bone mineral density. While calcium and vitamin D supplementation occurs in the majority of subjects bisphosphonate are often used unnecessarily in a predominantly pre-menopausal and female population. Clearer guidelines for the investigation and monitoring of bone protection in steroid dependent asthmatics are required.

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HOW HAS THE SURGICAL TREATMENT OF LUNG CANCER IN THE UK EVOLVED OVER THE LAST TWO DECADES? — AN ILLUSTRATIVE SURGEON'S EXPERIENCE

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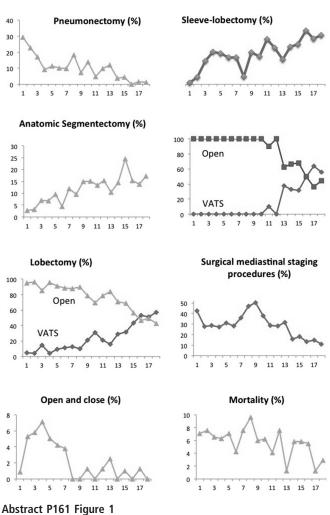
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Background/introduction The practice of lung cancer surgery in UK has seen many changes over the last 20 years, with innovations in surgical technique and investigatory modalities together with significant organisational changes.

Aims/objectives To assess how these changes have impacted on an individual Consultant surgical practice spanning this era.

Method We have retrospectively reviewed a single-surgeon practice from consultant appointment to the present (1997–2015) comprising 1708 consecutive lung cancer operations: 962 (56%) lobectomy, 296 (17%) sublobar resection, 250 (15%) extended resection, 157 (9%) pneumonectomy, 43 (3%) open/close. Concurrently, 710 surgical staging procedures were performed. We analysed trends with time in type of procedure; open/close rates and in-hospital mortality.

Results 1557 anatomic resections were performed (87 cases/year, 67–130) with no significant decrease in the annual workload. There were significant changes in the types of surgical procedures performed over the time period: a significant decrease in pneumonectomy rate (p < 0.001), mirrored by an increasing use of sleeve-resections (p = 0.088); an increase in the proportion of anatomical resections by video assisted thoracic surgery (VATS) (p < 0.001), an overall increasing number of anatomical segmentectomies (p < 0.001), with a stable rate of wedge resections (mean 6.3%, p = 0.908). There has been a significant decrease in surgical mediastinal staging, particularly after 2010 (p < 0.001) with a significant reduction in the open/close rate, particularly after 2004 (4.8 vs. 0.65%, p < 0.001). Overall the in-hospital mortality rate has significantly decreased (from 7.1% in 1998 to 2.9% in 2015, p = 0.004).



Conclusion There has been significant evolution in lung cancer surgery over the last two decades, which are illustrated in this individual surgeon's practice. Whilst increased surgical experience may partly explain the changes, other important factors include: a change in the biology of lung cancer from central squamous to peripheral adenocarcinomas with earlier tumour detection, facilitating more VATS and lung-sparing surgery; improved perioperative care and the use of lesser resections, reducing mortality; and new techniques in staging (CT-PET, EBUS) reducing the need for surgical staging and the number of futile thoracotomies.

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